Volume XIII.

Price 5 cents.
Number 12.

NORTH AND SOUTH DAKOTA HORTICULTURE

DECEMBER 1940

Dr. N. E. Hansen (left) and W. R. Leslie, inspecting a blooming Yuksa tree at Morden. This tree is the only plum tree that makes a dependable root stock for the hardy apricots.

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

Dec. 1940

Vol. XIII December, 1940 No. 12

THE AMERICAN CROW

by

O. A. Stevens

O. A. Stevens

It is with much hesitation that I venture to write of a bird which is so well known and so unfavorably known as the crow. Its habits were well described by Alexander Wilson at the beginning of the ninteenth century. Wilson decided that the American bird was the same as the Carrion Crow of Europe. A little later Audubon placed the American bird as a distinct species. Nothwithstanding the numbers of crows which we think we have, in point of different kinds we seem to be behind some other regions. Europe has not only the carrion crow corresponding to our species, but also the hooded crow, the rook and the jackdaw. India has the rook and jackdaw, a house crow which is similar to ours and a jungle crow. Australia has two species of crows, though they seem less obnoxious . Africa has two or three but South America has none.

Crows are large birds and are very black. They gather in large flocks and thus readily suggest an invasion of a fiendish horde. But John Burroughs wrote:

"My friend and neighbor through the year,
Claim thy tithyings right and left,
I shall never call it theft."

So the crow continues to have his enemies and some friends.

Birds live at a high rate and consume relatively large amounts of food. Large birds in numbers can make considerable inroads upon food. Thus flocks of crows in their winter quarters may inflict marked damage to field crops as has been reported in Kansas and Oklahoma. Large flocks of the birds occur in winter along the Atlantic coast, in southern Indiana and Illinois, in Kentucky, from central Kansas to northern Texas, in southern Idaho, in eastern Oregon and along the coast of Oregon and Washington. As many as 200,000 birds have been estimated in some of these large winter roosts. The development of agriculture in the plains region of Canada and the increase of sorghum crops in Kansas and Oklahoma seems to have favored the crow in these regions.

It may be pointed out that many kinds of insects increase with the development of agriculture. Approximately one-fifth of the entire food of the crow consists of insects, among which white grubs (May beetle larvae) and grasshoppers are prominent. Caterpillars and spiders are a special quest for the nestlings. Small rodents, especially young cottontail rabbits, have been calculated to make up 1.6 percent of the food of the old birds and 8.8 percent of that of the young ones.

The chief complaints against the crow involve grain in fall and winter, also at planting time in some sections, and the destruction of poultry, game and song birds. The losses to poultry are regarded (Farmers Bulletin No. 1102) as largely

(Continued on page 143.)

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original Office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, So. Dak.

TABLE OF CONTENTS

NEWSLANTS

by Harry A. Graves

H. A. Graves

If the number of folks who called correcting the mislabelling of "Old Main" as "Festival Hall" on last month's cover page are an indication of our usual reading public, we have a much larger following than we ever expected. It was a very natural error and space does not permit the entire explanation here. We shall only say that the cover picture for November was the Administration building at N. D. A. C. and not Festival Hall. Festival Hall is a very different building on the campus. Were my ears red?

Whalen Brothers, of St. Thomas, North Dakota, large scale Red River Valley potato growers, got themselves some nationwide publicity when they branded their potato sacks this year with the slogan, "To Hell With the Dictators!" Time magazine even gave them some space. Only this week a letter arrived from Mr. Thomas Wilson of Pueblo, Colorado, who is interested in securing one of the bags for his collection of agricultural oddities.

H. B. McKay, Grafton potato dealer, has a quantity of aluminum sulphate which he is going to try next spring as a neutralizing agent for alkali spots in fields otherwise made up of good soil. It is claimed to be cheaper and quicker acting than ammonium sulphate. If it is all that the company claims it to be, perhaps it could be of use in controlling dandelions in lawns.

Bismarck's World War Memorial building was the scene, October 20-22, of the largest, and I have been reliably told, the best flower display ever held in North Dakota. The occasion was the Tri-State Flower Show held in connection with the Tri-State Florists' Convention held in Bismarck on the same date. Florists from Minnesota, South Dakota, and North Dakota assisted with the show, as well as florists from Chicago, Colorado, and the west coast. The false ceiling was made up of wild smilax from Louisiana, as I recall it, and the false side walls and background were composed of several thousand square yards of white cedar blanketing. While local merchants of Bismarck contributed to the show, most of the local administration appeared to rest upon the shoulders of Worth Lumry, of the Oscar H. Will Company, and Brooks Hoskins of Hoskins-Meyer. About 30,000 people viewed the exhibit and many of them returned two or three times to see the show again. Displays of Gardenias, Orchids; and beautiful Pampas grass, both natural color and bleached pure white, were things of beauty long to be remembered. A large display of **Strelitzia,** Bird of Paradise flower, was the largest number of blooms of this unusual plant I have ever seen. Other flowers too numerous to mention made up the show, the likes of which I may never have the opportunity to see again.

Tamarix bloomed wonderfully well this year, and by pure accident (we forgot to put water in the vase) we discovered that leaves and flowers of this shrub are almost as attractive dried as fresh. John Thompson and I have in our office a nice bouquet of bloom from this shrub taken late last summer.

From the National Seedsman we learn that sunflower seed was a good crop this year. It is estimated that approximately 4,600,000 pounds of country-run sunflower seed was produced this year, or approximately 57% more than last year. Most of this crop is raised in California and smaller amounts in Missouri and Illinois.

Also from the National Seedsman comes a note than Dr. W. H. Duncan, of the Department of Botany, University of Georgia, has discovered a new species of oak. This is reported to be the first distinctly new tree to be found east of the Mississippi River in 75 years.

PRESIDENT'S CORNER

by
H. E. Beebe

December Delights Dakotans

H. E. Beebe

When November has an early below zero spell, the warm lulls of two or more days which often come in December are doubly delightful.

Long ago I decided that on the flat plains where the entire atmosphere is often renovated several times each day, that the only certain thing about the weather is its uncertainty. Last week our good looking Librarian Mrs. Witz, recommended, "Land of the Burnt Thigh", a story of homesteading southwest of Pierre, in this the weather is authentic, more than the continuous blizzard of Rose Lane's, "Free Land", which is also a good story of the Dakotas. Her other Dakota Story, "Let the Hurricane Roar", was dramatized over a natonal radio hookup the last of October.

To get back however, to pleasant Dakota falls, Sudlow of Bison editorializes on October 31st, 1940:

"West river Dakotans continue to marvel in amazement at the spectacular autumn weather that has brought only a few very light frosts so far. With November 1st only two days away, we hear of lettuce growing in gardens from seed of the spring crop, new chickens, flowers at their summer's best, trees in their most magnificent autumn brilliance and birds showing their reluctance to leave this perfect climate for the heat of the south.

"Hollyhocks in the garden of Mrs. Paul Root are at their most brilliant. The stately flowers are growing in a plot that has not been gardened for several years, come up voluntarily from seed that has undoubtedly lain dormant in the soil for some years. Cosmos, Zinnias and many others are at their best in flower gardens at almost every home, apparently because the long autumn has provided days of mild temperatures."

Also on Dec. 6th, 1939, Editor Gritz of the Belvidere Times swore that he saw a dandelion in bloom with a butterfly hovering over it, and has two witnesses.

Winter Window Winners

If that middle word had the "N" left out, Wallner would be excited right now. For the benefit of the Garden Club member whom he mentions in the November magazine, I would say that if I knew as much about Widows as Wallner, I could write an encyclopedia and it would be more interesting to read than most of them.

As for Winter Windows, right now is the time to start boxes of Petunias. Alice Chaphe who also produces good poetry, at Vermillion, favors a combination with Gourd vines as per page 142 in the Dakota Farmer of April 6th. Send 5c to Aberdeen.

There are advantages in starting plants in jars and putting the jars that come best inside the window box which can in this case be more ornamental.

If you insist on a solid box built of earth, I like the light sheet iron, about 30 inches long, painted any bright color as long as it is red.

Christmas Comes Carolling

Talking about red and green, the best Christmas poem aside from the religious subjects perhaps, is as Milt Gross says, "The Night in Front of Christmas". Like Shakespeare, it is full of personal reaction and you feel with the writer, the thrill of previous Christmases.

Those who have taken advantage of this past warm November to pick sprays of colored leaves, (even the spirea was red in northern South Dakota this fall) and pressed them at once in old magazines, will have Christmas bouquet.

On Labor Day, Sumach was cut and pressed and a little later in Iowa bitter sweet and Chinese lanterns were gathered. These are in a vase in front of a large mirror in the living room and will be a touch of rich color yet on Christmas day.

May I wish all the readers of this magazine a very Merry Christmas, and flowers in the home during the winter.

And now for the Christmas poem:
Lo, now is come our joyful'st feast!
Let every man be jolly,
Each room with Ivie leaves is drest,
And every post with holly.
Now all our neighbors' chimneys smoke,
And Christmas blocks are burning;
Their ovens they with bak't meats choke,
And all their spits are turning.
Without the door let sorrow lie,
And if, for cold, it hap to die,
We'll bury't in a Christmas pye,
And ever more be merry.

In her school essay on "Parents" a little girl wrote: "We get our parents when they are so old that it is impossible to change their habits." —Kablegram.

MANITOBA NEWS LETTER

by W. R. Leslie

W. R. Leslie

The Morden Experimental Station has enjoyed receipt of many samples of seedling fruits during recent years. During August and September of 1940 the mails carried more of these samples than in any previous season. In one delivery came parcels of seedling fruits from British Columbia, Alberta, Saskatchewan and Manitoba. Parcels were also received from northern Ontario on other occasions.

The arrival of these seedlings is evidence of the steadily growing trend of farmers to establish a plantation of fruits. Pioneers, using the term garden, usually referred to a small unsheltered patch of ground close to the kitchen door. In it grew potatoes, carrots, turnips, beets, radish, leaf lettuce, cabbage, and in some cases a few annual flowers. The average farm garden of today is tree sheltered and composed of four rooms or parts—namely the vegetable plot, the summer-fallowed plot to be sown to vegetables in 1941, a flower border, and the latest, but most proudly possessed portion, the fruit garden or orchard.

It is stimulating to the workers at the Morden Station to gather fruit packages from the daily mails for six weeks. Here the major effort is with horticulture or garden crops. Tens of thousands of packages of fruit seed have been shipped to those requesting such during the past two decades. In many instances the fruit samples are a case of chickens coming home to roost. In other packages are samples which sprung from wilderness parents. Seldom are these of excellence sufficient to warrant advising the grower to consider them other than as reliable shock troops for their plum or cherry gardens. Gardeners remember that the years have caused at least three native plums to rise up and set high standards. These are Assiniboine, McRobert, and Olson. Native plums to surpass these must be really good ones. Then there is the case of the farmers who planted pits of prune plums from British Columbia. Seven seedlings developed well. This season two lusty bushes bore fruit that thrilled the growers. The samples arriving at Morden were definitely impressive. One was a purple plum of prune type, long and carrying a waxy bloom. The second was a large purplish red fruit of pleasing quality and indicating several Japanese plum characters. These Manitoba farmers kindly donated budsticks.

In growing fruit trees from seed it is well perpetually to remind ourselves that hybrid tree fruits do not come true from seed.

The season when the woods are all aflame with autumn has again come and gone. The period of time involved is comparatively short but rather grandly glorious. Trees and shrubs at the Morden Experimental Station were more than usually exciting with gay and extravagant coloring this year. The season has been kindly and the landscape seemed to celebrate with abandon. The borders and shrub islands are composed of mixed masses. On every side most of the subjects were highly flushed as if on a reckless spree and expressing joy at the fine harvest home occasion. The casual visitor, beholding the scene, would tend to pause and consider the bewilderment of any paint and canvas artist confronted with the idea of portraying the late September landscape. There might be a thousand color tone variations on a single bush. Nature is truly an artist in a lone class.

Among the yellow and gold were birch, aspen, ash, cottonwood, native grape, sorbaria, prinsepia, basswood, hackberry, elm, larch, buckthorn, amur lilac, villosa lilac, amorphia, cork-tree, securingea, Manchurian apricot, walnut, locust, silver maple, some apples, violet willow, mulberry and tamarix.

Bronze predominated hazel, native hawthorn, sugar maple, native oak, native mountain-ash, blackfruit quinceberry, some crab apples, chokecherry, saskatoon and arrowwood.

Red was effected by horsechestnut, nannyberry, pincherry, pembina, Virginia creeper, poison ivy, sumacs, bristly rose, burningbush, Oriental quinceberry, chokecherry, some oriental pears, amur maple, Canada plum, mountain-ash, Ussurian cherry, sand cherry, barberries, May-day tree, Opata, Sapa, Oka and Zumbra cherries, Radisson plum, golden currant, red maple, Viburnum buryajense and some native roses.

Purple was the ruling color on Cistena cherry, Newport and Okiya plums, dilitata lilac, red osier dogwood, Manchurian angelica-tree, Japanese spireas, cutleaf smooth sumac, Betty Bland rose and dwarf spindle-bush.

A considerable few species carry a wide color mixture. Among these are Amur maple, bristly rose, oriental cotoneasters, dilitata lilac, golden currant and some spireas.

Cotoneasters or quinceberries are mostly colorful as their foliage ripens. Outstanding was the little used Cotoneaster fontanesii. This shrub, with large black berries, developed many shades of red from scarlet, crimson and maroon on across the rainbow to purple and indigo. Korean barberry was about the liveliest vivid red.

WINTER CREEPING NEARER

by

W. E. H. Porter

W. E. H. Porter

Although at this season the dark angel lays an icy clutch on plant life, many pleasant hours can be spent in planning for more perfect garden in 1941 and for those of us who had the foresight to beautify our home surroundings, an exceptionally mild fall has rewarded with a lingering pageant of color that cool weather induces, in contrast to bare branches of our native poplars and willows and the bleak prairie landscape, which the following notes partially reveal. Oct. 10th. 69 in the shade at 12 M. garden beautifully colorful, Giant Swiss pansies in full bloom and intensely vivid. Foot high and 2 broad Aster Ronaldi flaunts myriads of pink lavender flowers. White mignionette renews its summer youth of growth and bloom. Phlox subulata breaks out with quite an unusual display of fall color, annual wallflowers coming into their seasonal best in warm red mahogany, orange, gold, yellow sulphur, with a sweet haunting fragrance reminiscent of the Emerald Isle where wallflowers attain such perfection. Pleasant but sad convolvulus tricolor with straggling flowers of blue, violet, white, and New Zealand delph seedlings, blooming as freely as any annual and with perfect resistance to night frosts. Again had to move my plants of Barr's Phlox hardi, an adjacent bed of Cerastium tomentosa (the evergreen snow in summer) that had provided shelter from summer heat was remorsely engulfing them. Owing to our exceptional ground moisture, over 20 inches of rain this season, seedlings of many summer annuals are showing, including Coreopsis tinctoria, it will be interesting to note whether it will prove a hardy winter annual as star thistles, Delph ajacis and orientalis, etc. Daphne cneorum, that after its normal period of May flowers, never quite went out of bloom, again repeats its spring lavishness; also noted a lovely newly emerged Tortoise shell butterfly sipping from Aster ronaldi. Coincident with return of juncoes, my one plant of ranunculus gramineus after a period of summer dormancy is again up with its blue green grass-like foliage, also numerous rosettes of May Queen scarlet poppy and Grape hyacinths. Oct. 16th. In spite of raging chilly west winds Mums and fall asters remain undamaged, tho it appears that one 7 foot wand-like orgyalis sunflower will not get beyond the bud stage. With moist and cool soil this appears to be a good time for redivision of moss phlox, how quickly the clump spread and amalgamate, only 16 months ago they were reset. Oct. 27th. High winds herald winters approach altho day temperatures are in the 50's and 60's. I have two charming golden rods, Solidago caesia and erecta, the former known as wreath golden rod, was in bloom until a few days ago, flowering almost from the base up, the latter a dainty thing is now in bloom, yard high arching small leaved stems tipped with golden sprays especially welcome now that mums and fall asters have passed their prime. I see Harrington Pink aster was accorded honorable mention by the New York Botanical Society; with me it has been blooming for 6 weeks and still has some left. Oct. 26th. Shade temperature 56. Altho Ocean spray spirea has shed its foliage, continued mild weather induces spring buds to burst into foliage and to a lesser extent, same applies to Rose spirea Douglasi Penstemon fructicocus and venustus and ash leaved spirea with green spears of St. Bernard lily pushing thru. Oct. 28th. After a night and day of heavy rain, ground is again well soaked. Hardy Begonia evansiana now that top is frozen down, has gone into dormancy with fat bulbs underground; the plant indoors seems inclined to bloom, foliage is very beautiful, bright green leaves, veined red, which is transparent like stained glass. Red of new rocket dinarica transplants resembles overgrown spinach ready to seed, foliage a rich smooth green, unlike any rocket I know of. I consider Alyssum condensatum quite the best of madworts, comes readily from seed and flowers freely the same year into winter, a ground hugger but crown of plant sufficiently woody to induce a low mound, a great improvement on Montanum which only flowers in spring and gets very unkept as summer advances. Both this rocket and madwort seem to be practically unknown and are only listed in Rex Pearce's Treasure Chest. Yesterday raging east wind defoliated many Chinese elms but that of Cotoneaster and lilacs remain intact.

Believed to travel farther than any other bird, the Arctic tern makes a round trip of 22,000 miles annually. It builds its nest as far north as possible and travels and travels as far south as it is able to procure food. In contrast to this, ordinary bobwhites avoid travel and many of them live their entire lives without going more than 10 miles from the nest from which they were hatched.—Gib Swanson in Capper's Farmer.

QUESTIONS AND ANSWERS

by

L. L. Davis

L. L. Davis

I wish to raise some poinsettias but know nothing of their propagation or care. Will you please send me some information regarding them?

Poinsettias are propagated from cuttings. The best time for taking these cuttings is from March to May, depending on the condition of the parent plant. Shortly after the leaves have dropped or matured, stems of the current seasons growth are cut into lengths of from four to six inches and buried in moist sand, which should be held at a temperature of from seventy to eighty-five degrees Fahrenheit. All of the plant should be held at a temperature of seventy to eighty-five degrees Fahrenheit. All of the plant should be buried except the tip, which should be level with the sand, or about so.

As soon as from two to four leaves have developed, the cuttings are taken from the sand and potted in small pots of soil, and held at a cool temperature with a little light. Their growth may be regulated by temperature and light, so as to have them in bloom at the desired season.

About June 1, they should be taken outside and planted in the open, or bury the pots in the soil to reduce moisture loss. Watering is essential, and some forcing may be necessary, such as feeding liquid manure, in order to have them in bloom at the proper time. Poinsettias are not difficult to grow, and with a little care can be carried from year to year by taking cuttings from the older plant.

With a little care a poinsettia plant that is in full bloom at Christmas can be kept in good condition for flowering next year. The true blossoms, inconspicuous, are surrounded by the bright red leaves or bracts, which fall off soon after the holidays are over.

After the leaves have fallen, put the plant in a cool place, between 40 and 60 degrees, and allow the soil to dry out. Do not water the plant in this stage, which should last until about May. Then, if there is too much old wood to make a shapely plant for next winter, cut it back. Shake the old soil from the roots without crowding. Provide drainage in the bottom of the pot. Fill it with fresh soil—three parts garden loam, one part well-rotted manure, and one part leaf-mold.

After the poinsettia is potted, set in in a warm, light place and water whenever the soil seems to be drying out. When the maple trees are in full leaf, set the poinsettia out of doors in a sunny place, still in its pot. Bury the pot in the soil up to its top. This saves repotting in the fall and disturbing the roots. In a very hot climate, it's better to place the poinsettia where there is some shade at midday. As soon as growth starts, provide wooden or wire stakes to support the plant and keep the stems straight. It may be necessary to repot the plant once during the summer in a larger pot, if it becomes potbound.

In the fall, and when there is danger of frost, it is time to bring the poinsettia indoors. Keep it in a light, airy part of the house, out of drafts, where the temperature ranges from 60 to 75 degrees. Higher temperatures will make the leaves drop. Keep the soil moist and give it a little liquid manure at weekly intervals.

If you use poinsettias as cut flowers, sear the flower stems immediately after cutting by dipping them in hot water or holding in the flame of a candle or lamp.

Please advise me as to the best method of protecting young trees from rabbits in the winter time. I had many trees barked last winter. I have been told that a treatment of strong soap and water would prevent rabbit damage. Is this true?

I believe the best protection against rabbits and field mice is that of a one-half inch mesh wire guard. The wire should be cut so that it can be wrapped in a cylinder around the tree. The wire should also extend above the snow line so as to prevent rabbits eating above the wire guard. There is a slight value in using burlap wrappings or even newspapers, which can be supplied at once. Such wrappings should be removed next spring. However, I believe you will find greatest protection may be had with the wire guards. A strong soap solution has some beneficial effects, but if food is scarce, it will not prevent rabbits from eating the trees.

Will you please send me all the information possible on how to store celery for the winter?

Celery should be stored over the winter, either by planting in soil in a frost-proof cellar or by covering them with sufficient insulation to prevent their freezing outdoors. Some growers blanch celery with upright boards on either side of the row, then one over the top, and as winter conditions become more severe, straw is placed on top. When this form of protection is used, it is necessary to remove all the protection on top of the plant when each board is taken away. Frost must not touch the plants remaining under

(Continued on page 140.)

SECRETARY'S CORNER

by
W. A. Simmons

W. A. Simmons

The October Bulletin of the Men's Garden Clubs of America has just come to our desk and we note their slogan, "MORE P(L)ANTS IN THE GARDEN." From the arrangement of the letters in the second word, we gather that the L is supposed to be silent. As bifurcated nether habiliments are no longer the monopoly of the male "sect", who are considered by their wives to have strong backs and weak minds, it would be desirable for them to be more specific in the ends they desire to be attained.

Am wondering how many of our readers have seen the concolor lily; am sure those that have seen it now have it in their gardens or "on order" as its charms are irresistible. To compare it with a better known lily, the tenuifolium or Coral, it is of about the same season, early June with us, grows to about the same height, one to two feet and has the same vivid coloring and delightful fragrance. The form of the bloom is different, being erect with narrow segments and starry in form. Like the tenuifolium it grows readily from seed and is generally propagated in that manner so is free from mosaic and resistant to botrytis, neither of which worry us, altho eastern lily growers seem to have considerable trouble with them. Its short stature makes it suitable for rock gardens, if any one still has them; perhaps the fad will come back some day as most gardeners accumulated so many rocks that some use would have to be made of them and most of them were too large to heave at the neighbors cat or the pestiferous wild rabbit that nightly raids the garden. Like many other of our best lilies, the concolor came from Asia, has been found growing wild in Mongolia and has long been under cultivation in Japan. Incidentally the elegans lily is believed to be a hybrid between concolor and L. dauricum and the umbellatum, a cross between the elegans and the croceum, so concolor blood is in both these lilies of easy culture and the concolor is fully as hardy and of as easy culture as either. The bulbs are small and should be planted 4 inches deep; it is stem rooting, the bulb is white and in cultivation often forms dense clumps that require thinning every few years. It came to Europe in ships of the East India Co. in 1806, according to Dr. G. L. Slate in his book Lilies For American Gardens. Of the Dropmore variety, Dr. Slate says: "Mr. F. L. Skinner of Dropmore, Manitoba, raised this variety about 1917 by crossing L. concolor with the variety pulchellum. It received an award of merit from the Royal Horticultural Society in 1927. It grows two to two and one half feet tall and bears from three to five brilliant scarlet flowers, several stems arising from one bulb. This form is considered one of the best of the concolor varieties." Concolor lily bulbs are very moderate in price and can be obtained right here in South Dakota, fine disease free, seed-grown bulbs.

On his page in this issue, our Vegetable authority tells of tomatoes not being considered fit food for human consumption in his youth. Considering that Mr. Wallner claims to be several hundred years younger than the Secretary, this seems surprising. One of my earliest memories, in eastern Minnesota, was of my mother raising many tomato plants in the house and transplanting them into tin cans from which both ends had been cut, then at the proper time, setting can and all in the garden without disturbing the plants roots and making the plant safe from all cut worms not provided with can openers. If there was any hesitation about eating tomatoes, at that time and place, I never heard of it. As the Englishman attempted to repeat the American joke "we would eat what we can and what we could not eat we would tin." Our sympathies go out to the Minnesota Society, who had their annual meeting scheduled for the 13th and 14th and were forced by the weather man to postpone it. Now (Nov. 18th) we have our fingers crossed about our own meeting on the 25th and 26th and we realize Sec. Mackintosh may easily have an opportunity to return the compliment.

QUESTIONS & ANSWERS

(Continued from page 139.)

the shelter. If the plants are dug and planted in the cellar, they should be planted as close together as possible. Frost must never be permitted to touch the plants.

If you have a very small quantity of celery, it may be possible to dig the plants, pack in a box that has been lined with waterproof paper (avoid tarpaper) and bury in a hole in the garden, over which is added sufficient straw to prevent the celery from freezing. When the box is opened, it will be necessary to remove the entire contents so no more than is required should be planted in it for each opening.

An epigram is a wisecrack that has lived long enough to make a reputation.—Washington Post.

FRUIT AND VEGETABLE NOTES

by

F. X. Wallner

F. X. Wallner

A small tomato contains 25 calories, 3:3% carbohydrates, 0.9% protein, and 0.4% fat. They also contain calcium, phosphorus, iron, copper and manganese, also vitamins A, B, C and G. What other fruit or vegetable is more valuable to eat from the hand than the lovely tomato that I recall in the eighties and nineties was not considered food for man. More than 20 starch factories are grinding 12,000 barrels of No. 2 Maine potatoes into starch every day. Number 2 potatoes bring 80 cents a barrel and culls 20 cents, but 95% are No. 2 or better. The freeze caught about 9,000 acres un-dug and about 5,000 acres will be abandoned. It is best to have them dug by Oct. 15th altho we have had no freezing weather up to Armistice day, this year. New York state also had about one fourth of its crop in the field and the 16% freeze no doubt damaged the crop very much, all tender crops were killed. The numerous shelterbelt and farm plantings I saw south and east of Mitchell seem to be thriving in spite of the drought and it will be a big relief to see the trees out in that part of the state. Nov. 5th. To cut 40 or 50 bushels of nice leaf lettuce on this late date is quite unusual in this northwestern state. Large handbills have appeared in Sioux Falls from Hanson county, Iowa, protesting the shipping of a car load of Washington apples in this county when there are still 125,000 bushels of local apples to sell and these fancy apples are given away, and the freight on these 645 boxes was $388, more than 50 cents a box, which is more than local apples were selling for. A woman in Mount Vernon, N. Y., has made "Believe It Or Not" Ripley think that a heart shaped tomato is a freak, or something very unusual, while we have grown them for several years, not only one variety but there are now 8 or 10 varieties of heart shaped tomatoes. A bright colored lady bug, crawling around on my hand here as I am writing; never noticed before that there were two white spots on her red back, her wings stick out a little at hind end, after a three day storm and cold snap, perhaps it is a sign of early spring. Sec. Fitch of the Iowa Vegetable Growers, does get into some tough jams. He is worried sick because his very good Methodist friend has found out that he bot a raffle ticket from another very good Catholic friend, and the Methodist hopes he wins so he can roast him the more by advertising. Prof. A. T. Erwin is asking for all of the No. 500 seedling we grew from a sample sent us this year. It seems the potato growers in northern Minnesota had an early freeze in June so that all of the No. 500 seedling were lost. But he adds that he will send me another variety for testing in the spring, so I am willing to send him my stock, as he has in the past sent me promising samples. Nov. 16th. Today we bunched up the last of the green top carrots and they all went out as there was a shortage here, but the way they pick up the green tops rather than the bulk carrots, you would think they eat the green tops and not the carrots. Of course bulk carrots cannot be too large and coarse, nor wilted. From now on for the next six months we can not have local carrots with green tops, but the bulk carrots of small size, nice color, washed clean, will have as much vitamins and calories as imported carrots with green tops. A visit a week ago to our friend Mr. J. W. Parmley, at Moe Convalescent Home here was very much appreciated by him. He seemed so glad to see me and thanked me again and again for the little bag of grapes and oranges that he enjoyed so much. He was anxiously looking for others, when I left, and I do hope some of his Sioux Falls friends will call on him.

If your commercial florist buys bushels and bushels of apples, don't conclude that he is keeping the doctor away. For him, apples have a new use: Field-grown rose bushes, before being shipped, must have the leaves removed to cut down moisture loss thru evaporation. To eliminate hand picking of the leaves, growers today place the rose bushes in a moderately heated room with a bushel of apples to every 300 or 400 cubic feet of space. Apples give off small quantities of ethylene (a constituent of natural gas) which causes the leaves to shed in about 4 days. —Gib Swanson in Capper's Farmer.

From a purely theoretical investigation of reactions between certain calcium salts and the pectic acids of tomatoes has evolved an immensely practical method for improving the quality of whole canned tomatoes. By adding minute amounts of calcium chloride to peeled tomatoes, a "gel" is formed within the plant cells that maintain the firm texture of the fruit even upon exposure to the high temperatures of the canning operation and mechanical shaking of the fruit during transportation, with the result that whole tomatoes roll out of the can.—Farm Research.

1940 NURSERY INSPECTIONS

by

E. H. Everson, Secretary of Agriculture, and Charles S. Weller, Assistant.

E. H. Everson

In the October issue of North and South Dakota Horticulture, we reviewed some of the findings of our seasonal inspection of South Dakota nurseries, made in compliance with the law for the purpose of "determining the presence of dangerous insects, arachnids, worms, and plant diseases" and to prevent their distribution in connection with the sale of nursery stock. In that issue, we told of leaf and twig rust of ash caused by puccinia fraxinata, and reported the presence of the Spiny Elm caterpillar, the adult known as the Morning Cloak butterfly. Also there was recorded the trouble found with southeastern South Dakota evergreens caused by the Red Spider, a small mite one-sixtieth inch in length.

The 1940 survey in connection with the nursery inspections again brought to light the limited presence in apple trees of fire or pear blight, which, by the way, we do not consider to be a general menace. So far, we have been guided by the Federal authorities, and particularly have we followed the procedure of Minnesota in guarding against the spread of this disease, which is now confined to that section of the State directly north of the Black Hills where a quite noticeable infection is evident. There are no nurseries in that part of the State. Pear or fire-blight is a disease which prospers in a succulent growth, and it is not strange that we should find it centered in, and practically limited to, well-irrigated areas such as are found around Belle Fourche.

Outside of the northern Black Hills region, fire-blight is rare in South Dakota. The disease is largely confined to the pomaceous fruits both wild and cultivated, pear being most susceptible and the apple second. Pear blight has so ravaged some portions of the United States that pear growing has been abandoned. South Dakota pears are a rarity, so the disease is largely confined to old, worn-out and weakened apple trees. Many of these trees are diseased beyond recovery and repair. Some can be saved by drastic and severe pruning. Surely it is advisable whenever planting a new orchard to select blight-resisting varieties.

The name fire-blight is indeed appropriate. The leaves look as though they had actually been scorched by a flame. These blackened or browned leaves cling tenaciously to the dead twig for a long time. In most cases, oozings or droppings of a milky, opalescent material is to be found on newly infected areas. All parts of the tree are subject to invasion, but regardless of where the infection starts, the bacteria generally work through the cortical region of the bark back into the stem, where, if conditions are favorable to its growth, it will spread all around the stem, cutting off circulation and thus killing the branch or the tree. All infected portions of the affected tree and the exodus therefrom contains large numbers of the bacteria. Insects, the chief disseminators of the disease, carry from tree to tree the organisms either on their body or mouth parts. Man, through ignorance or carelessness, in many cases aids the spread of the disease by the use of pruning and other tree surgery tools. Whenever a cut has been made in infected trees, adhering to the blade is much of the dangerous bacteria which will infect any healthy tissue which it contacts. Tools that have come in contact with diseased trees should be thoroughly disinfected before being used on any healthy pear or apple tree tissue. Rain is undoubtedly responsible for some spread of the disease because of the splattering of ooze about the tree. Control of the disease in South Dakota consists in these principal measures: Cutting out all diseased tissue and the burning of such affected parts including the exodus. Control of insects which carry the disease from tree to tree. Avoiding succulent growth and removing the same if danger threatens, destruction of any wild trees such as crab and hawthorn. It would be advisable to completely remove any infected pear trees.

This issue of the Horticulturist will reach its subscribers near Christmas, a season of the year which ought to be a sufficient reminder that next spring, the South Dakota Department of Agriculture will, as in the past, pack and deliver, as many as you like for farm planting, 100 baby red cedars or pondorosa pines for $1.25. We sell other forest tree seedlings too. You, in planting

(Continued on page 143.)

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

BOOK REVIEW

by
Mrs. F. Briley

Mrs. F. Briley

Shrubs in the Garden and their Legends, by Vernon Quinn, illustrated by Marie A. Lawson; Published by Frederick A. Stokes Company, New York, 1940. Price $2.50.

This book gives us the "something new about shrubs" that all amateurs have needed in order to have that friendly interest in them which is so necessary now that shrubs have become an indispensable part of our yards and gardens. Many Indian legends, folklore, old superstitions and ancient usefulness of shrubs are interwoven in this book in an informal and interesting style. After reading the book one will love the barberry all the more upon knowing how valuable it has been to civilization, dating before the Christian era; also the boxwood, which thru milleniums of time has been grown in gardens; firethorn; hydranges, which grew centuries upon centuries ago somewhere in China. Who said shrubs were something new? The author has given us the history and lovely legends of thirty shrubs alphabetically arranged from azalea to winterberry. The special beauty of the drawings add charm to the text. The book is of such a high degree, that as a librarian I feel that I must have such of the authors' nature books, travel books, and books for children that are available.

1940 NURSERY INSPECTIONS

(Continued from page 142.)

these evergreens, can provide Christmas trees for the boys and girls and oldsters a decade or more hence. But, we doubt that any true South Dakotan of the prairie sections will be inclined to cut an evergreen tree even for Yuletide celebrations.

Did you know that the evergreen tree contributed its share towards ending human sacrifice in Europe? Way back in the eighth century, human sacrifices were made to the Sacred Oak in central Europe. Missionary St. Boniface found it difficult to stop the custom. Finally he showed his converts an evergreen tree, a fir, which as he explained, was pointing straight upward to the Christ Child. His urge and command was "Take this tree in your homes as a sign of your new worship, live still when earth is darkest and with no sign of blood upon it. Celebrate God's Power no more in the forest with shameful rites, but in the sanctity of your homes with laughter and love."

It was not until the beginning of the Nineteenth Century, when the custom spread to most of the countries of northern Europe and to Canada and the United States. Christmas trees are unusual in Christmas celebrations in the Latin countries of the old and new world.

Merry Christmas to our Tree Planting Friends, and to all.

THE AMERICAN CROW

(Continued from page 134.)

preventable by screening enclosure for chicks, housing of sitting hens and destruction of nearby crow nests. In the case of wild birds, good cover is one of the most effective protections. Dr. Roberts of Minnesota maintains that the shooting of hawks and owls has tended to destroy one of the natural checks upon crows. Federal authorities (Circ. No. 433) hold that the destruction of waterfowl is serious on only about one-sixth of the nesting area in Canada and Alaska and not definitely known in northern United States. I have been told at some of the refuges in North Dakota that the crows are not an important factor.

Crow hunts continue to be popular with sportsmen although neutral and friendly writers repeatedly point out that such hunting disturbs other wildlife, often kills other birds and creates a prejudiced and unwholesome attitude. The U. S. Department of Agriculture has recommended that control measures be used in certain cases and with care. Systematic bombing of roosts has been used effectively in some cases but it has several bad features.

A recent article reports on the recoveries of 143 out of 714 birds banded in Oklahoma from December 5, 1935 to March 10, 1936. Approximately one-half of them were recovered during the winter months in Kansas, Oklahoma and Texas. Summer recoveries were mainly in Saskatchewan, Alberta and Manitoba. None were recovered in the south during the summer, showing that the species is highly migratory.

Crows have always been credited with a high degree of intelligence. Thousands of them have been reared from the nests to make interesting pets. Thus notwithstanding their ill repute, they have been among the most popular of tamed birds. Of the 714 banded, 8 were recovered in the first six months of 1939, showing that a considerable number had survived at least three and one-half years.

INDEX TO VOLUME XIII, 1940

CLIMBING VINE HABITS

South of the equator those plants which climb by twining spirally about a support make their ascension by twining from right to left whereas north of the equator the spirals turn from left to right and nothing will induce them to change their course. Try to compel the morning glory to do otherwise. Take a sprout which has not wound itself about a support and twist the vine about a pole from right to left. If it is not prevented from doing so, the vine will reverse itself and begin to climb in the opposite manner. Fastened in the wrong position, it will make a loop or double back to resume its normal and accustomed procedure of climbing from left to right.

Seeds taken from one hemisphere to the other have produced plants which follow the old maxim, "When in Rome, do as the Romans do." The plants will adopt the custom of their foster country.—Mississippi Sun.